APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/540,952	03/31/2000	Carl A. Waldspurger	9772-291-999	1926

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Pennie & Edmonds, LLP
3300 Hillview Avenue
Palo Alto, CA   94304

EXAMINER
KENDALL, CHUCK O

ART UNIT	PAPER NUMBER
2122	

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

		Application No.	Applicant(s)
Office Action Summary		09/540,952	WALDSPURGER ET AL.
		Examiner	Art Unit
		Chuck O Kendall	2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *31 March 2000* .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☐ Claim(s) _____ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-39* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6) ☐ Other:

DETAILED ACTION

1. This action is in response to the application filed 03/31/00

   Claims 1-39 have been examined.

2.

Claim Objections

Claims 5, 18 & 31 are objected to because of the following informalities: Duplicate of

claim 2. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the
United States before the invention thereof by the applicant for patent, or on an international application
by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
title before the invention thereof by the applicant for patent.

Claims 1-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Levine et al.

USPN 6,134,710.

Regarding claim 1, Levine anticipates a method of monitoring the performance of a

program being executed on a computer system, comprising:

   executing the program on a computer system, the program having object code

instructions (Levine,2:30-35);

   at intervals interrupting execution of the program, including delivering a first

interrupt; and (3:55-60);

in response to at least a subset of the first interrupts, determining a latency associated with a particular object code instruction, storing the latency in a first database, the particular object code instruction being executed by the computer such that the program remains unmodified (8:4-17, for latency see stalls and durations).

Regarding claim 2 the method of claim 1 wherein said determining the latency includes:

determining an initial value of a cycle counter(8:39-44, for initial value);

performing the particular object code instruction(Levine,2:30-35);

determining a final value of the cycle counter(8:39-44, for threshold value); and

determining the latency based on the initial value and the final value(8:35-40, see time of event based transition also refer back to stalls and duration events).

Regarding claim 3 the method of claim 2 further comprising:

executing at least one instruction selected from the set consisting of (A) an instruction for ensuring that the particular object code instruction is performed after the initial value of the cycle counter is determined, and (B) an instruction for ensuring that the particular object code instruction is performed before the final value of the cycle counter is determined (8:39-44, for initial value, see figure 6, for object code).

Regarding claim 4 the method of claim 2 further comprising:

applying an adjustment to the final value (8:58-60 for adjustment, see resetting threshold value).

Regarding claim 5 see reasoning in claim 2.

Regarding claim 6 the method of claim 1 wherein the particular object code instruction has a variable execution time (7:15-25).

Regarding claim 7 the method of claim 1 wherein the particular object code instruction is a memory access instruction (8:7-9).

Regarding claim 8 the method of claim 1 wherein the computer system includes a plurality of memory units, each memory unit of the plurality of memory units having a different range of access times, and further comprising:

associating the particular object code instruction with a memory unit in accordance with the latency and the range of access times for the memory unit (8:5-35).

Regarding claim 9 the method of claim 1 wherein said determining the latency includes:

determining an initial value of a cycle counter(8:39-44, for initial value);

executing a first dependent instruction to provide a predetermined execution order (4:25-30);

performing the particular object code instruction(Levine,2:30-35);

executing a second dependent instruction to provide the predetermined execution order (4:25-30 and see preload order);

determining a final value of the cycle counter(8:39-44, for threshold value); and

determining the latency based on the initial value and the final value(8:35-40, see time of event based transition also refer back to stalls and duration events).

Regarding claim 10 the method of claim 9 wherein the first and second dependent - instructions are memory barrier instructions (8:27-37, see registers).

Regarding claim14 see reasoning in claim 1.

Regarding claim 15 see reasoning in claim 2.

Regarding claim 16 see reasoning in claim 3.

Regarding claim 17 see reasoning in claim 4.

Regarding claim 18 see reasoning in claim 5.

Regarding claim 19 see reasoning in claim 6.

Regarding claim 20 see reasoning in claim 7.

Regarding claim 21 see reasoning in claim 8.

Regarding claim 22 see reasoning in claim 9.

Regarding claim 22 see reasoning in claim 10.

Regarding claim 27 see reasoning in claim 1.

Regarding claim 28 see reasoning in claim 2.

Regarding claim 29 see reasoning in claim 3.

Regarding claim 30 see reasoning in claim 4.

Regarding claim 31 see reasoning in claim 5.

Regarding claim 32 see reasoning in claim 6.

Regarding claim 33 see reasoning in claim 7.

Regarding claim 34 see reasoning in claim 8.

Regarding claim 35 see reasoning in claim 9.

Regarding claim 36 see reasoning in claim 10.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11-13,24-26, & 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Levine et al. USPN 6,134,710 in view of

Regarding claim 11 Levine discloses all the claimed limitations as applied in claim 1. Levine

doesn't explicitly disclose interpreting the instructions of the at least one issue block and

wherein said particular object code instruction is in the issue block. However, Krishnaswamy

does disclose this feature (5:45-55). Therefore it would have been obvious to one of ordinary

skill in the art at the time the invention was made to modify Levine with Krishnaswamy, because

it transparently migrates old software into a new platform that can be executed on a new

machine, (Krishnaswamy, 1:15-20).

Regarding claim 12 the method of claim 11 wherein said interpreting emulates a

machine language instruction set of the computer system (Krishnaswamy, 4:1-5 for emulating

machine language instructions se executes).

Regarding claim 13 the method of claim 11 wherein said interpreting updates a state of the interrupted program as though each interpreted instruction had been directly executed by the computer system (Krishnaswamy, 4:1-5).

Regarding claim 24 see reasoning in claim 11.

Regarding claim 25 see reasoning in claim 12.

Regarding claim 26 see reasoning in claim 13.

Regarding claim 37 see reasoning in claim 11.

Regarding claim 38 see reasoning in claim 12.

Regarding claim 39 see reasoning in claim 13.

Correspondence Information

Any inquires concerning this communication or earlier communications from the examiner should be directed to Chuck O. Kendall who may be reached via telephone at (703) 308-6608. The examiner can normally be reached Monday through Friday between 8:00 A.M. and 5:00 P.M. est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Greg Morse can be* reached at *(703) 308-4789.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is *(703) 305-3900.*

For facsimile (fax) send to 703-7467239 official and 703-7467240 draft

Chuck O. Kendall

Software Engineer Patent Examiner
United States Department of Commerce

GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100